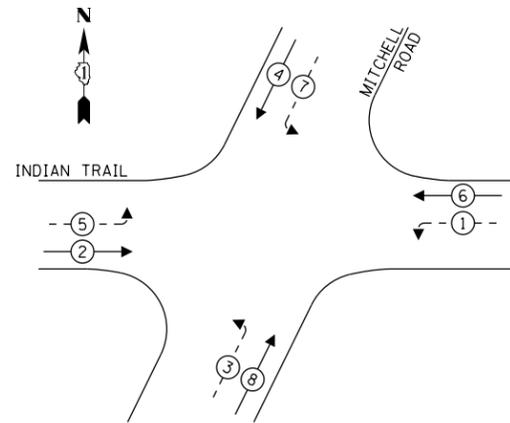


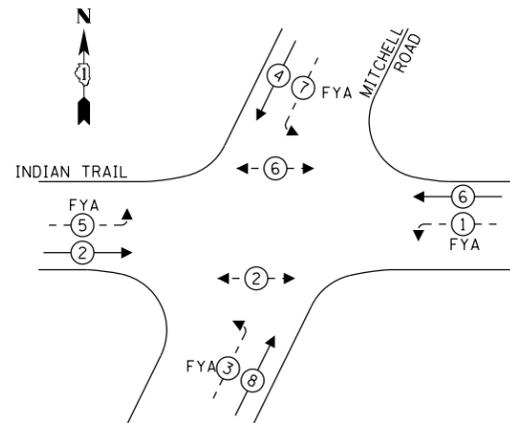
**EXISTING CONTROLLER SEQUENCE**



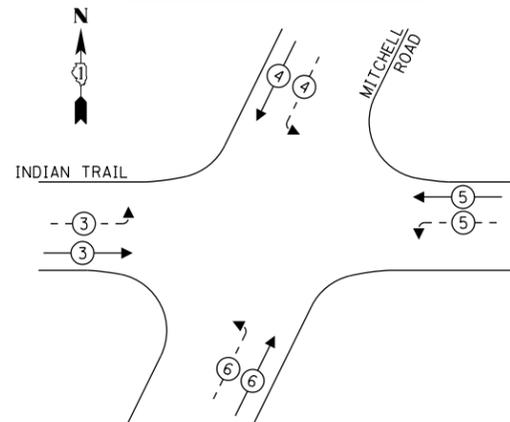
**LEGEND:**

- ⊙ PROTECTED PHASE
- ⊙ PROTECTED/PERMITTED PHASE
- ⊙ PEDESTRIAN PHASE
- OL OVERLAP
- FYA FLASHING YELLOW LIGHT

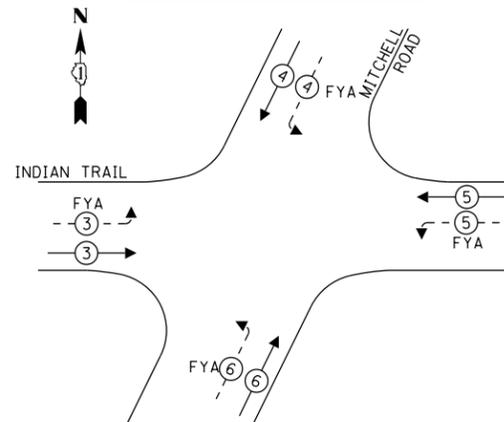
**PROPOSED CONTROLLER SEQUENCE**



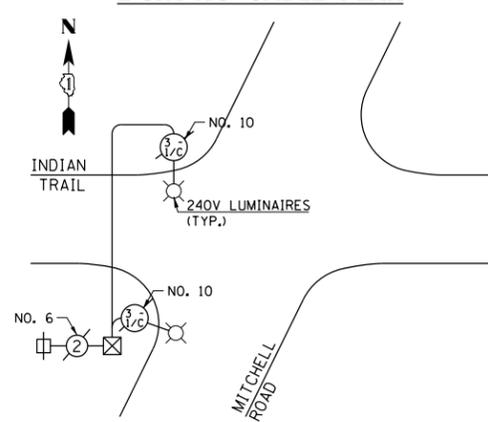
**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE**

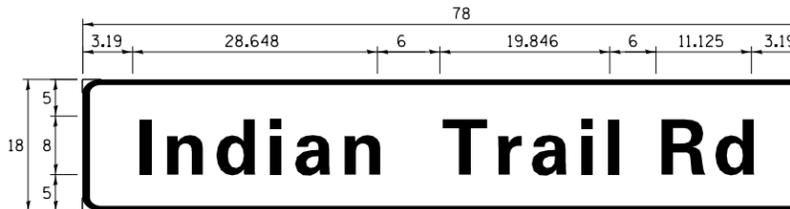


**EXISTING & PROPOSED LIGHTING CABLE PLAN**



| DESIGN SERIES | AREA (SQ FT) | SIGN PANEL TYPE | SHEETING TYPE | QTY. REQUIRED |
|---------------|--------------|-----------------|---------------|---------------|
| D             | 7.5          | 1               | ZZ            | 2             |

SHALL BE MOUNTED ON THE MAST ARMS IN THE NORTHWEST AND SOUTHEAST CORNERS.



| DESIGN SERIES | AREA (SQ FT) | SIGN PANEL TYPE | SHEETING TYPE | QTY. REQUIRED |
|---------------|--------------|-----------------|---------------|---------------|
| D             | 9.75         | 2               | ZZ            | 2             |

SHALL BE MOUNTED ON THE MAST ARM IN SOUTHWEST AND NORTHEAST CORNERS.

**SCHEDULE OF QUANTITIES**

| ITEM  | UNIT    | TOTAL   |
|---|---------|---------|
| SIGN PANEL - TYPE 1   | SQ. FT. | 67.5    |
| SIGN PANEL - TYPE 2   | SQ. FT. | 19.5    |
| UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.                                | FOOT    | 20.0    |
| UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.                                    | FOOT    | 120.0   |
| HANDHOLE  | EACH    | 1       |
| UNIT DUCT, 600V, 5-1C NO.2, 1/C NO.4 GROUND, (XLP-TYPE USE), 2" DIA. POLYETHYLENE | FOOT    | 6       |
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION                               | EACH    | 1       |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C                                       | FOOT    | 771.0   |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C                                       | FOOT    | 857.5   |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C                                       | FOOT    | 1,609.5 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C                                       | FOOT    | 1,804.0 |
| ELECTRIC CABLE IN CONDUIT, COMMUNICATION NO. 16 3 PAIR                            | FOOT    | 928.0   |
| ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C                | FOOT    | 955.5   |
| TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.                                      | EACH    | 1       |
| STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.  | EACH    | 1       |
| STEEL MAST ARM ASSEMBLY AND POLE, 72 FT.  | EACH    | 1       |
| STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 32 FT.                               | EACH    | 1       |
| STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 46 FT.                               | EACH    | 1       |
| CONCRETE FOUNDATION, TYPE A   | FOOT    | 4.0     |
| CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER                                      | FOOT    | 37.0    |
| CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER                                      | FOOT    | 25.0    |
| SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED                              | EACH    | 6       |
| SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED                             | EACH    | 4       |
| SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED                              | EACH    | 4       |
| PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER         | EACH    | 4       |
| TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC                                | EACH    | 4       |
| TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE   | EACH    | 6       |
| PEDESTRIAN PUSH-BUTTON  | EACH    | 4       |
| TEMPORARY TRAFFIC SIGNAL INSTALLATION   | EACH    | 1       |
| RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT  | EACH    | 1       |
| MODIFY EXISTING CONTROLLER  | EACH    | 2       |
| REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT  | EACH    | 1       |
| REBUILD EXISTING HANDHOLE   | EACH    | 5       |
| REMOVE EXISTING HANDHOLE  | EACH    | 1       |
| REMOVE EXISTING CONCRETE FOUNDATION   | EACH    | 5       |
| CONDUIT SPLICE  | EACH    | 1       |
| VIDEO DETECTION SYSTEM COMPLETE   | EACH    | 1       |
| TEMPORARY TRAFFIC SIGNAL TIMING   | EACH    | 1       |

TS SHT NO. 13

HRG PROJECT NO.: 191891  
 HRG PROJ. CONTACT:  
 FILE NAME: 09397-sht-13-mitch-cob-02.dgn  
 PEN TABLE: 09397.tbl



|                              |                |                    |
|------------------------------|----------------|--------------------|
| USER NAME = jstrzal          | DESIGNED - JCH | REVISED - 2 6/7/23 |
| PLOT SCALE = 40.0000 ' / in. | DRAWN - JCH    | REVISED -          |
| PLOT DATE = 6/7/2023         | CHECKED - JJS  | REVISED -          |
|                              | DATE -         | REVISED -          |

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

MAST ARM MOUNTED STREET NAME SIGNS  
 AND SCHEDULE OF QUANTITIES  
 INDIAN TRAIL ROAD AT MITCHELL ROAD

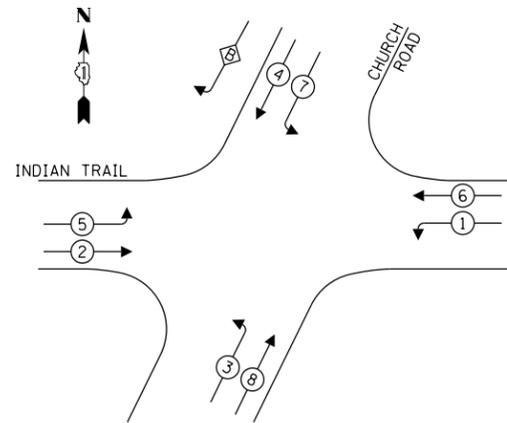
SCALE: SHEET 17 OF 33 SHEETS STA. TO STA.

| F.A.U. RTE.               | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 1503                      | 06-00260-02-PV | KANE   | 227          | 143       |
| CONTRACT NO. 61H85        |                |        |              |           |
| ILLINOIS FED. AID PROJECT |                |        |              |           |





**EXISTING CONTROLLER SEQUENCE**



**LEGEND:**

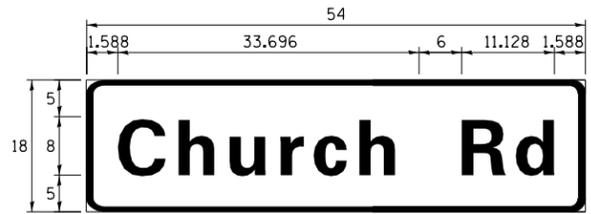
- ← \* → PROTECTED PHASE
- ← \* - - PROTECTED/PERMITTED PHASE
- ← \* → PEDESTRIAN PHASE
- OL OVERLAP

**RIGHT TURN OVERLAP**

**PHASE DESIGNATION:**

OVERLAP LETTER = PERMISSIVE PHASE + PROTECTED PHASE  
 B = 4 + 5

MA-1



| DESIGN SERIES | AREA (SQ FT) | SIGN PANEL TYPE | SHEETING TYPE | QTY. REQUIRED |
|---------------|--------------|-----------------|---------------|---------------|
| D             | 6.75         | 1               | ZZ            | 2             |

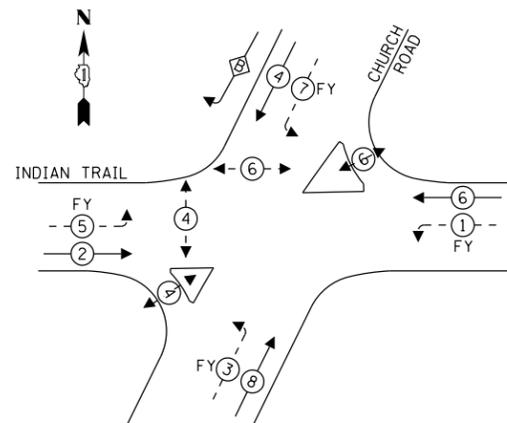
SHALL BE MOUNTED ON THE MAST ARMS IN THE NORTHWEST AND SOUTHEAST CORNERS.

**SCHEDULE OF QUANTITIES**



| ITEM  | UNIT  | TOTAL   |
|---|-------|---------|
| SIGN PANEL - TYPE 1   | SQ FT | 66.0    |
| SIGN PANEL - TYPE 2   | SQ FT | 19.5    |
| UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.                                    | FOOT  | 135.0   |
| UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.                                | FOOT  | 106.0   |
| UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.                                    | FOOT  | 76.0    |
| UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.                                    | FOOT  | 391.0   |
| HANDHOLE  | EACH  | 5       |
| UNIT DUCT, 600V, 5-1C NO.2, 1/C NO.4 GROUND, (XLP-TYPE USE), 2" DIA. POLYETHYLENE | FOOT  | 12      |
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION                               | EACH  | 1       |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C                                       | FOOT  | 1,636.5 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C                                       | FOOT  | 2,142.5 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C                                       | FOOT  | 2,539.0 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C                                       | FOOT  | 2,232.0 |
| ELECTRIC CABLE IN CONDUIT, COMMUNICATION NO. 16 3 PAIR                            | FOOT  | 980.0   |
| ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C                | FOOT  | 2,110.0 |
| TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.                                      | EACH  | 3       |
| STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.  | EACH  | 1       |
| STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.  | EACH  | 1       |
| STEEL MAST ARM ASSEMBLY AND POLE, 48 FT.  | EACH  | 1       |
| STEEL MAST ARM ASSEMBLY AND POLE, 50 FT.  | EACH  | 1       |
| CONCRETE FOUNDATION, TYPE A   | FOOT  | 24.0    |
| CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER                                      | FOOT  | 54.0    |
| SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED                             | EACH  | 3       |
| SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED                              | EACH  | 3       |
| SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST-ARM MOUNTED                             | EACH  | 4       |
| SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED                              | EACH  | 4       |
| SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED                             | EACH  | 1       |
| PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER         | EACH  | 8       |
| TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC                                | EACH  | 5       |
| TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE   | EACH  | 6       |
| PEDESTRIAN PUSH-BUTTON  | EACH  | 8       |
| TEMPORARY TRAFFIC SIGNAL INSTALLATION   | EACH  | 1       |
| RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT  | EACH  | 1       |
| MODIFY EXISTING CONTROLLER  | EACH  | 1       |
| REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT  | EACH  | 1       |
| REBUILD EXISTING HANDHOLE   | EACH  | 1       |
| REMOVE EXISTING HANDHOLE  | EACH  | 8       |
| REMOVE EXISTING CONCRETE FOUNDATION   | EACH  | 6       |
| ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED                           | FOOT  | 400.0   |
| CAT. 6 ETHERNET CABLE   | FOOT  | 190.5   |
| PEDESTRIAN SIGNAL POST, 10 FT.  | EACH  | 3       |
| VIDEO DETECTION SYSTEM COMPLETE   | EACH  | 1       |
| TEMPORARY TRAFFIC SIGNAL TIMING   | EACH  | 1       |

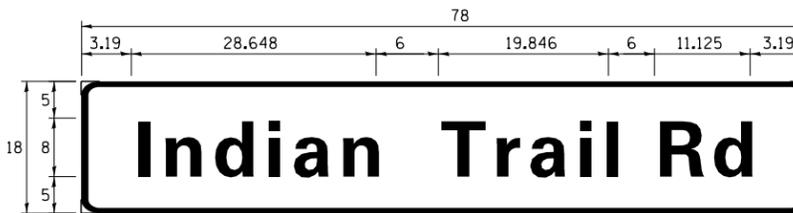
**PROPOSED CONTROLLER SEQUENCE**



**LEGEND:**

- ← \* → PROTECTED PHASE
- ← \* - - PROTECTED/PERMITTED PHASE
- ← \* → PEDESTRIAN PHASE
- OL OVERLAP

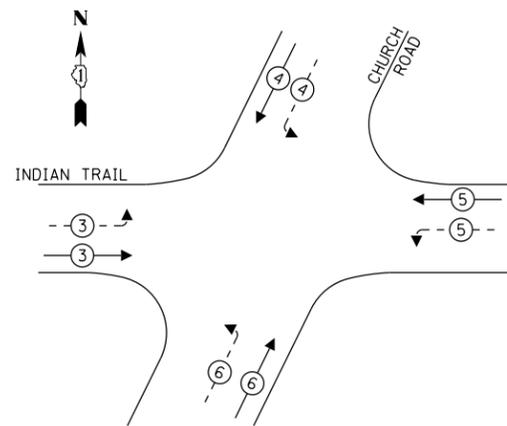
MA-2



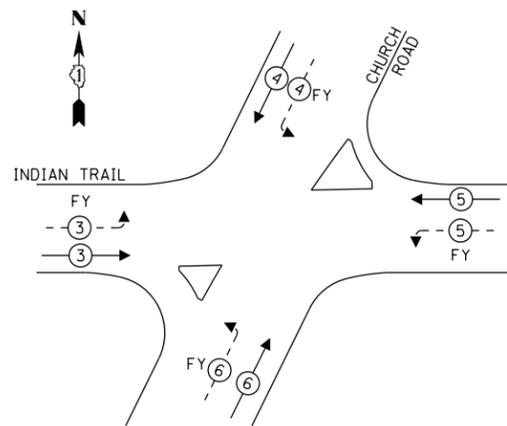
| DESIGN SERIES | AREA (SQ FT) | SIGN PANEL TYPE | SHEETING TYPE | QTY. REQUIRED |
|---------------|--------------|-----------------|---------------|---------------|
| D             | 9.75         | 2               | ZZ            | 2             |

SHALL BE MOUNTED ON THE MAST ARM IN SOUTHWEST AND NORTHEAST CORNERS.

**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE**



TS SHT NO. 20

HRG PROJECT NO.: 19189  
 HRG PROJ. CONTACT:  
 FILE NAME: 0939-sht-19-church-ebb-02.dgn  
 PEN TABLE: 19189.tbl



|                             |                |                  |
|-----------------------------|----------------|------------------|
| USER NAME = jstrzal         | DESIGNED - JCH | REVISED - 6/7/23 |
| PLOT SCALE = 40,0000' / in. | DRAWN - JCH    | REVISED -        |
| PLOT DATE = 6/7/2023        | CHECKED - JJS  | REVISED -        |
|                             | DATE -         | REVISED -        |

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

MAST ARM MOUNTED STREET NAME SIGNS  
 AND SCHEDULE OF QUANTITIES  
 INDIAN TRAIL ROAD AT CHURCH ROAD

SCALE: SHEET 28 OF 33 SHEETS STA. TO STA.

| F.A.U. RTE. | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO.                 |
|-------------|----------------|--------|--------------|---------------------------|
| 1503        | 06-00260-02-PV | KANE   | 227          | 154                       |
|             |                |        |              | CONTRACT NO. 61H85        |
|             |                |        |              | ILLINOIS FED. AID PROJECT |